

REMARKS

Introduction

Claims 1, 8, 22 and 27 have been amended. The application continues to include claims 1-31.

The Restriction Requirement is Withdrawn

Applicants acknowledge that the restriction requirement has been withdrawn in the May 20, 2004 Office Action.

The Drawings Show All Elements

The drawings are objected to because they fail to show post 16 as described in the specification. Applicants respectfully disagree. Post 16 is clearly shown and identified in Figs. 2 and 4. The objection to the drawings should be withdrawn.

The Specification Provides Proper Basis

The specification is objected to as failing to provide proper antecedent basis. In response, the specification has been amended. Applicants request that the objection be withdrawn.

The Claims are Allowable over the Prior Art

Claims 1, 3-5, 7-9, 11, 12, 14, 20, 21 and 27-30 are rejected under 35 U.S.C. § 102(e) as being anticipated by Gualandi (U.S. Pat. No. 6,481,356). Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Gualandi. Claims 2, 19, 22-24 and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gualandi in view of Hoffman (U.S. Pat. No. 4,939,997). Claims 6, 10, 15, 16, 18 and 31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gualandi in view of Dippold et al. (U.S. Pat. No. 5,263,418). Claim 17 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Gualandi in view of Stevens (U.S. Pat. No. 5,361,701). Claim 25 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Gualandi in view of Hoffman and further in view of Dippold. Finally, claims 1, 4, 5, 7, 8, 17, 20 and 21 are rejected under 35 U.S.C. § 102(b) as being anticipated by Stevens (U.S. Pat. No. 5,361,701).

Reconsideration of these rejections is respectfully requested because the prior art fails to disclose a sabot having a compression section that will at least partially collapse upon firing to produce a volume change.

One embodiment of the present invention is a sabot 4 that includes a compression section 10 and a solid section 12. The compression section includes a plurality of interconnected fins 12 that, upon firing, will at least partially collapse from the force of the slug 6. The collapse of the compression section produces a volume change, which allows the internal ballistic characteristics to be modified for optimum performance, and allow the projectile to be ejected at a higher velocity.

Gualandi discloses a bullet setting mechanism that includes a seat 10. Seat 10 includes two half parts 10A and 10B which are intended to separate when positioned inside of a rifle barrel, as shown in Fig. 8. Half parts 10A and 10B are provided on the outer surface with parallel inwardly curved reliefs 15. Curve reliefs 15 "permit the separation of the two half parts 10A and 10B" (see col. 4, ll. 45-48). However, Gualandi fails to disclose that curved reliefs 15, or any other part of seat 10, will collapse upon firing. In fact, as seen in Fig. 8, because 10A and 10B are separated, bullet 7 fails to rest on 10A and 10B and therefore would not provide any force on 10A and 10B upon firing that would cause reliefs 15 to collapse.

Stevens discloses a tracer round 20. The tracer round 20 includes a wad 34 on which the examiner has identified a "solid section" 34, with a "compression section" 58. What the examiner has identified as the "compression section" are four petals 58 that "serve to grip the rifling" (see col. 5, ll. 18-21). The petals 58 do not, however, appear to function to collapse upon firing. Moreover, any other area of tracer round 20 that may be identified as a "compression section" either does not collapse upon firing or does not appear to produce a volume change as a result of a collapse.

In contrast to Gualandi, Stevens, and the other cited prior art, amended independent claim 1 recites a compression section that "is adapted to at least partially collapse upon firing to produce a volume change". For at least this reason, claim 1 should now be allowable.

Amended independent claims 8, 22 and 27 include similar limitations as claim 1. Based at least on the foregoing, these claims should also be allowable. The remaining claims each

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depend from one of the above independent claims, and therefore should also be allowable based at least on the foregoing reasons.

Conclusion

Applicants respectfully request favorable action in connection with this application.

The Examiner is invited and urged to contact the undersigned to discuss any matter concerning this application.

No fee is believed to be due for this submission. Should a fee be required, the Commissioner is authorized to charge any such fee to Womble Carlyle's Deposit Account No. 09-5028.

Respectfully Submitted,

Date:

8/17/04



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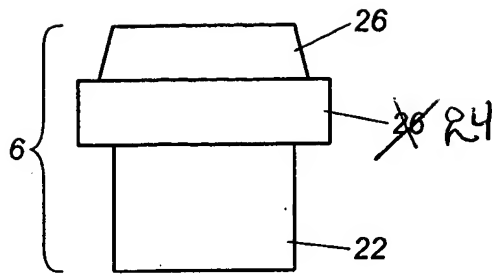


Fig. 5

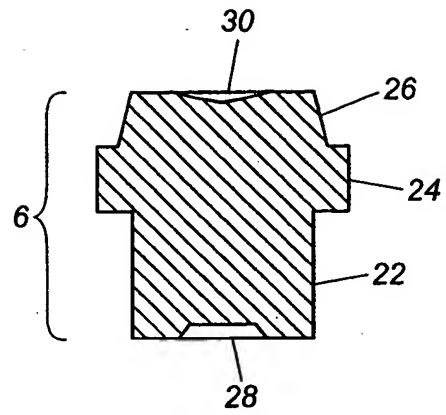


Fig. 6

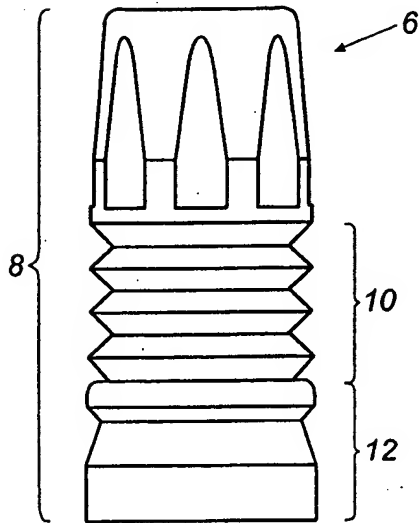


Fig. 7

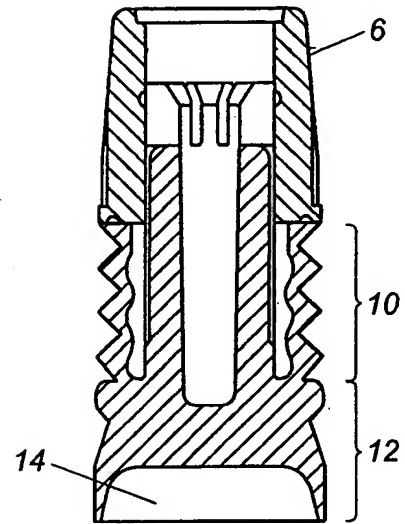


Fig. 8

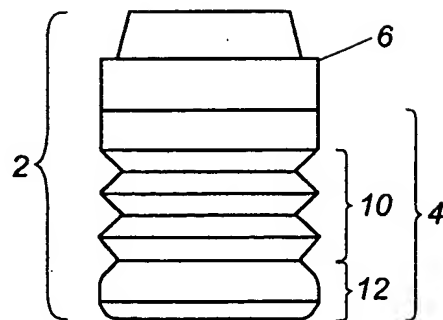


Fig. 9